

**REMARKS**

By this amendment, claims 1-40 are pending, in which claims 2, 4-8, 10-12, 14, 17 and 20 are currently amended. No new matter is introduced. The claim amendment merely corrects discovered informalities. Hence, these changes are not believed to raise new issues requiring further consideration and/or search, and it is therefore respectfully requested that the present amendment be entered under 37 C.F.R. §1.116.

The final Office Action mailed March 3, 2006 rejected claims 1-4, 6-9, 11-15, 20-24, 26-29, 30-34 and 39-40 as obvious under 35 U.S.C. § 103 based on *Cohen et al.* (US 6,434,618) in view of *Bhattacharya et al.* (US 6,587,466), claims 5 and 25 as obvious based on *Cohen et al.* in view of *Bhattacharya et al.* and in further in view of *Haas* (US 5,115,432), claims 16, 18, 35 and 37 as obvious based on *Cohen et al.* in view of *Bhattacharya et al.* and in further in view of *Feldmen et al.* (US 6,055,561), claims 17 and 36 as obvious based on *Cohen et al.* in view of *Bhattacharya et al.* and in further in view of *Sauter* (US 5,537,546), claims 19 and 38 as obvious based on *Cohen et al.* in view of *Bhattacharya et al.* and in further in view of *Grant et al.* (US 5,027,269), and claims 10 and 29 as obvious based on *Cohen et al.* in view of *Bhattacharya et al.* and in further in view of *Gai et al.* (US 6,651,096).

Independent claim 1 recites, “**receiving a control message from the external processor, by the programmable access device, to establish a configuration of the programmable access device.**” Independent claim 21 recites, “**an external processor that transmits a control message specifying a configuration**” and “**a programmable access device that receives messages from a first network external to the network access system via a first network interface, and that, responsive to the control message, establishes the configuration specified by the control message.**” Independent claim 40 recites “**an external processor configured to receive, from the programmable access device, a first subset of the input messages and to**

**transmit a control message to the programmable access device specifying a configuration to control the selection of the first subset.”**

Applicants noted in the prior Response that the above features are not found in the combination of *Cohen et al.* and *Bhattacharya et al.*, even if these references could be properly combined. The present Office Action still does not address this argument. Instead, the Examiner refers to the same passages, col. 10: 56-63 and col. 11: 55-62 (*Emphasis Added*):

FIG. 5 is a flowchart that illustrates the functioning of a generic gateway program in the programmable gateway of the present invention. At step 501 program is initialized with the function gwp\_nit, which initializes the data structures. At step 502 the sets of characteristics of the desired packet flows, flow1, flow2, etc., for the program are registered with the dispatcher process with the functions gwp\_start\_flow (flow1), gwp\_start\_flow (flow2), etc. (col. 10: 56-63)

If yes, **decision steps 610, 611 and 612 respectively determine whether the message is a request for starting or stopping a flow; a request for processing of forthcoming packets within the dispatcher process; or a packet itself that has been processed by a gateway program.** If it is determined at step 610 that **the message is a request for starting/stopping a flow**, which declares the properties of packets to be received, then at step 613, the appropriate request is forwarded to the packet filter 403. (col. 11: 55-62)

The above passages are silent with respect to any “configuration,” much less in the manner claimed. As best understood, the Examiner appears to equate dispatcher process 402 as the claimed external processor and the gateway 400 as the claimed programmable access device (Office Action, pages 2 and 3). Also, presumably the request for starting or stopping a flow is the claimed control message; however, this request does not specify any configuration whatsoever. Further, under the Examiner’s interpretation, the request would need to specify configuration information. Such interpretation is not supported by *Cohen et al.*, which discloses in general terms (col. 4: 11-23) that dispatcher process 402 uses the packet filter process 403 in the Linux kernel to obtain packets requested by any of the gateway programs 404, 405 and 406. The dispatcher process 402 is the only process which interacts with the packet filter process 403.

It is responsible for sending incoming packets on the input 407 of network interfaces 408 to the particular gateway program or programs that wish to process them, if any, and for sending the processed packets back to the kernel.

Accordingly, even assuming the references of *Cohen et al.* and *Bhattacharya et al.* were properly combined based on some teaching or suggestion in the references, and assuming the modifications proposed in the Office Action were justified by additional teachings or suggestions found in the references, even the combination does not render the claimed invention obvious. Specifically, none the references taken alone, or in combination, teaches or suggests “**receiving a control message** from the external processor, by the programmable access device, **to establish a configuration of the programmable access device.**”

Furthermore, Applicants maintain that one of ordinary skill in the art would not motivated to modify the *Cohen et al.* system based on the teachings of *Bhattacharya et al.* On page 3, the Office Action acknowledges that “Cohen teaches that processor handling some of packets to be process on the programmed gateway, not an external processor,” citing to col. 12: 8-12. This cited passage states the following:

Alternatively, the Combined Policy-matching Engine may be located in an external policy server and policy decisions may be outsourced to this device, while the service specific modules are located at the Policy Enforcement Entity such as the router or firewall.

From this passage, one of ordinary skill would understand that an external policy server can be utilized. In the context of the *Cohen et al.* system, this would suggest that the packet filter 403 can obtain policies from an external policy server, not that the dispatcher process 402 can alternatively reside in an external policy server. Therefore, Applicants respectfully submit that the Office Action has presented no substantial evidence showing a teaching or motivation to combine the prior art references.

Therefore, Applicants submit that the features of independent claims 1, 21, and 40 are not satisfied.

Also, the rejection of dependent claims 2-4, 6-9, 11-15, 20, 22-24, 26-34, and 39 should be withdrawn for at least the same reasons as those discussed above with regard to their respective independent claims, and these claims are separately patentable on their own merits. For example, claim 2 recites “receiving a control message comprises receiving a **filter control message to establish a configuration of a packet header filter** in the programmable access device.” The Office Action refers to various passages within *Cohen et al.* for a supposed teaching of the above features: col. 5: 20-25 and col. 5: 66 – col. 6: 9. These passages state the following (*Emphasis Added*):

Admission daemon 410 starts the execution of both locally injected and remotely injected gateway programs. Each gateway program 404, 405 and 406 is registered with the dispatcher process 402 by admission daemon 410, which also informs the dispatcher process 402 of the privilege level of the program. (col. 5: 20-25)

Further reduction in the size of messages which are transferred are achieved by certain **gateway programs that instruct the dispatcher process itself to perform specific functionalities rather than having these same functionalities performed within a gateway program.** For example, **packets can be filtered in accordance with whether they contain a specific flag, such as the SYN flag, in the packet header.** This flag, as is well known, marks a packet a being part of a TCP connection establishment protocol rather than a data packet for a particular connection. (col. 5: 66 – col. 6: 9)

From these passages, it is evident that the *Cohen et al.* system employs gateway programs 404, 405 and 406 to instruct the dispatcher process 402 to perform specific functions, filtering according to a SYN flag. Given the Examiner’s interpretation of the claimed invention (i.e., dispatcher process 402 as the claimed external processor), these instructions would constitute the control message; however, such control messages are not sent from the dispatcher process 402,

but rather from the gateway programs. Therefore, the claimed control message (which is from the external processor) cannot be disclosed by *Cohen et al.*

As regards the obviousness rejection of claims 5 and 25, Applicants submit that the addition of *Haas* does not cure the deficiencies of *Cohen et al.* and *Bhattacharya et al.* as discussed above. The secondary reference of *Haas* is applied merely for a supposed teaching of a control message to establish a threshold number of allowed retransmissions.

With respect to the obviousness rejection of claims 16, 18, 35 and 37, *Feldmen et al.* does not fill in the gaps of *Cohen et al.* and *Bhattacharya et al.* *Feldmen et al.* is applied for a supposed teaching of exchanging keepalive and acknowledgement messages between the external processor and the programmable access device.

As for the obviousness rejection of claims 17 and 36, this rejection is unsustainable as the addition of *Sauter* to the combination of *Cohen et al.* and *Bhattacharya et al.* does not satisfied the claimed features. *Sauter* is relied upon for a supposed teaching of transmitting a control message comprises accessing a control processor on the external processor via an application programming interface.

As for claims 19 and 38, the obviousness rejection over the combination of *Cohen et al.* and *Bhattacharya et al.* in further view of *Grant et al.* does not met all the claimed features. *Grant et al.* is applied for a supposed teaching of communicating a state of a session from the programmable access device to the external processor.

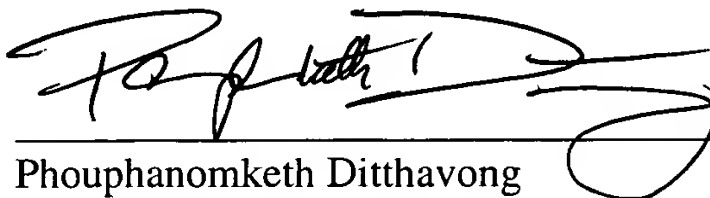
Lastly, the obvious rejection of claims 10 and 29 over *Cohen et al.* and *Bhattacharya et al.* in view of *Gai et al.* is likewise unsustainable, as *Gai et al.* fails to fill in the gaps of *Cohen et al.* and *Bhattacharya et al.* *Gai et al.* is relied upon for a supposed disclosure of a system for controlling the configuration of an access device that includes making configuration changes to a scheduler and has one or more output queues.

Therefore, the present application, as amended, overcomes the rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at (703) 425-8508 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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5/1/06  
Date



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